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Additions to the flora of Connecticut

[Reprinted from RHODORA, Vol. 19, Nos. 222, 223, 226 and 227, June, July,
October, and November, 1917.]

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C. B. GRAVES,
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SINCE the publication in 1910 of the Catalogue of Flowering Plants and Ferns of Connecticut,¹ a large amount of exploration has been done in the state and several previously unknown or inaccessible collections have been examined. The present article is an attempt to put the more important results of this work on record.² It includes reports of 88 indigenous and of 72 introduced species, varieties and named forms not included in the former publication. These have been marked, the native plants with an asterisk and the introduced plants with a dagger, in the following list.

¹ Bulletin no. 14 of the State Geological and Natural History Survey of Connecticut.

² In the case of records not here published for the first time, reference has been made in parenthesis to the original publication.

In addition there have been included a large number of new stations for the rarer species and extensions of range for those reported from restricted areas. Of such data, a considerable quantity which does not markedly modify the statements of the Catalogue has been excluded, because it seemed best to keep within reasonable limits of space. But it has been the intention to include all significant new information.

An attempt has been made to give the distribution of segregates published since 1910; but further study is likely to modify some of the conclusions here expressed.

ASPENIUM EBENOIDES R. R. Scott. On ledges of shale, Berlin and Southington (H. C. Bigelow).

ASPENIUM ANGUSTIFOLIUM Michx. Hartland (E. J. Winslow). Previously reported only from the trap hills of the central part of the state and from a single station in the calcareous region of the north-western part.

DRYOPTERIS GOLDIANA (Hook.) Gray. *Aspidium Goldianum* Hook. Hartland (Bissell & Weatherby), North Canaan (Bissell), Danbury (E. J. Winslow, Weatherby). Previously reported only from the triassic region of central Connecticut.

The following hybrids in the genus *Dryopteris* have been recognized as occurring in the state.

D. CRISTATA \times GOLDIANA. Plainville.

D. CRISTATA \times MARGINALIS. Occasional throughout.

D. CRISTATA \times SPINULOSA. Manchester, South Windsor, Windsor, Plainville, Southington, Plymouth.

D. CRISTATA, var. CLINTONIANA \times GOLDIANA. Plainville, Hartland.

D. CRISTATA, var. CLINTONIANA \times MARGINALIS. Manchester, Cromwell, Plainville.

D. CRISTATA, var. CLINTONIANA \times SPINULOSA. Manchester, Windsor, Plainville, Southington, Cornwall.

D. CRISTATA, var. CLINTONIANA \times SPINULOSA, var. INTERMEDIA. Manchester, Windsor, Plainville, Southington.

D. GOLDIANA \times MARGINALIS. Southington, Plainville, Hartland.

D. GOLDIANA \times SPINULOSA. Plainville.

D. MARGINALIS \times SPINULOSA. South Windsor, Berlin, Plainville.

D. MARGINALIS \times SPINULOSA, var. INTERMEDIA. Berlin, Manchester, Bristol, North Canaan.

* OPHIOGLOSSUM VULGATUM L., f. PSEUDOPODUM Blake. RHODORA, xv. 87 (1913). Manchester (A. W. Driggs).

EQUISETUM PRATENSE Ehrh. Salisbury (Mrs. C. S. Phelps, RHODORA, xvi. 96). Not previously reported from Litchfield Co.

* *LYCOPodium ANNOTINUM* L., var. *ACRIFOLIUM* Fernald. RHODORA, xvii. 124 (1915). Rare. Damp cold woods: Winchester (Bissell), Norfolk (J. H. Barbour), Colebrook (M. L. Fernald).

This variety, characterized by its firm, almost entire leaves, occurs as above. The other stations cited in the Catalogue are of true *L. annotinum*.

L. CLAVATUM, var. *MEGASTACHYON* Fernald & Bissell. RHODORA, xii. 53 (1910). *L. clavatum*, var. *monostachyon* of the Catalogue. Huntington (Eames). Not previously reported from Fairfield Co.

JUNIPERUS COMMUNIS L. Columbia, Southington and Hartland (Bissell & Weatherby), Mansfield (A. F. Greene), Guilford (W. R. Dudley). In the Catalogue reported only from Norwich.

SPARGANIUM AMERICANUM Nutt. Plymouth (A. E. Blewitt). Occasional throughout the southwestern part of the state. In the Catalogue reported only from eastern Connecticut.

S. LUCIDUM Fernald & Eames. Border of Alexander Pond, Killingly (Harger). Previously reported only from Hartford.

POTAMOGETON PULCHER Tuckerm. Local in ponds and slow streams near the coast.

P. ANGUSTIFOLIUS Berchtold & Presl. In the Housatonic River at Salisbury and Canaan (Eames & C. C. Godfrey), and at Kent and New Milford (Eames). In the Catalogue reported only from Oxford.

* *P. CONFERVOIDES* Reichenb. Rare. In ponds: Voluntown (Harger, G. E. Nichols).

RUPPIA MARITIMA L., var. *ROSTRATA* Agardh. Few collections of *Ruppia* with mature fruit have been examined, but most of the Connecticut material appears to be of this variety.

* *R. MARITIMA* L., var. *SUBCAPITATA* Fernald & Wiegand. RHODORA, xvi. 126 (1914). Madison (F. W. Hall, 1874; specimen in Herb. Conn. Agr. Exp. Sta.).

SCHUCHZERIA PALUSTRIS L. Voluntown (Harger). Not previously reported east of the Connecticut valley.

SAGITTARIA ENGELMANNIANA J. G. Smith. Thompson (Weatherby). Previously reported only from southern New London Co.

ELODEA CANADENSIS Michx. The typical form of this plant, with ovate leaves, is occasional or locally abundant through the western part of the state. Narrow-leaved plants are rather common throughout the state and seem to fall into two series, of which the more lax

and narrower-leaved extreme is probably *Philotria angustifolia* (Muhl.) Britton.

* *PASPALUM PUBESCENS* Muhl. Rare. Sandy soil in the flood-plain of the Connecticut River, Hartford (Bissell & Weatherby).

PANICUM VIRGATUM L. The form "with two to several staminate or abortive florets to a spikelet," said to be caused by a smut (Contr. Nat. Herb., xv. 89), is often observed and sometimes abundant in certain localities (Eames).

* *P. VIRGATUM* L., var. *CUBENSE* Griseb. Groton (Graves). A somewhat intermediate form, referred to this variety by Hitchcock and Chase (Contr. Nat. Herb. xv. 92).

P. LONGIFOLIUM Torr. Killingworth (Weatherby).

P. SPRETUM Schultes. Killingworth (Weatherby), Woodstock (Harger), South Windsor (Weatherby & C. W. Vibert). Extensions of range north and west.

P. ORICOLA Hitchc. & Chase. Locally abundant on the coast in Fairfield Co. (Eames). In the Catalogue definitely reported only from Waterford.

P. ALBEMARLENSE Ashe. Southington (Andrews). In the Catalogue reported only from Waterford.

P. SCOPARIOIDES Ashe. Southbury (Harger, RHODORA, xv. 66). In the Catalogue reported only from Southington.

P. COMMONSIANUM Ashe. Sand-plains, North Haven (Andrews ex Hitchcock & Chase, Contr. Nat. Herb., xv. 92).

P. XANTHOPHYSUM Gray. Sandy soil, North Canaan (A. E. Blewitt). Rocky summit, Salisbury (W. R. Dudley; specimen in Herb. Yale University). Previously reported only from north-central Connecticut.

* *P. ACULEATUM* Hitchc. & Chase. Alluvial soil, Stafford (Bissell & R. W. Woodward).

* *ECHINOCHLOA MURICATA* (Michx.) Fernald. RHODORA, xvii. 105 (1915). Rare. Pond-margins and fields: Pomfret (Weatherby), Berlin (J. N. Bishop, RHODORA, l. c.), Killingworth (F. W. Hall; specimen in Herb. Yale University), Bridgeport (Eames, RHODORA, l. c.).

* *SETARIA IMBERBIS* R. & S. Rare. Wet fields: Branford (Harger), Fairfield (Eames).

† *ZIZANIA PALUSTRIS* L. Indian Rice. Rare. Streams flowing into Lake Congamond, Suffield (Eames & C. C. Godfrey), where it has spread from plants introduced into the lake many years ago.

* *LEERSIA ORYZOIDES* (L.) Sw., forma *CLANDESTINA* Eames. *RHODORA*, xviii. 239 (1916). Rare. Stratford (Eames, l. c.). Distinguished from the typical form by having the terminal as well as the lateral panicles included in the sheaths.

HIEROCHLOË ODORATA (L.) Wahlenb. A form with very large spreading panicles occurs at Fairfield (Eames).

* *MILIUM EFFUSUM* L. Millet Grass. Rare. Rich, rocky woods, Hartland (Bissell & Weatherby).

ORYZOPSIS PUNGENS (Torr.) Hitchc. Suffield and Simsbury (Weatherby), Morris (J. P. Brace about 1820; specimen in Herb. Williams College. *Am. Journ. Sci. Ser. 1*, iv. 73; *RHODORA*, xvi. 90). In the Catalogue not reported from west of the Connecticut River.

In the Catalogue the ranges of three species of *Muhlenbergia* of the *mexicana* group were necessarily left somewhat indefinite because of lack of data. It is now possible to make a more definite statement, as follows:—

MUHLENBERGIA SYLVATICA Torr. Occasional. Woods, borders of thickets and banks of streams.

M. FOLIOSA (R. & S.) Trin. Open bogs, wet woods, or rarely in drier ground. Frequent in the northern part of the state, becoming occasional near the coast.

The awned form has been collected at Guilford (W. R. Dudley, 1872; specimen in Herb. Yale University).

M. MEXICANA (L.) Trin. Fields, dooryards, roadsides and waste places, preferring moist, rich soil: Scotland (Weatherby), Litchfield (J. P. Brace about 1820; specimen in Herb. Williams College: *RHODORA*, xvi. 90), New Milford (Eames) and frequent or locally common in the central and southern parts of the state. Not reported from Tolland Co.

The awned form occurs with the typical form, but less commonly.

These three species, though offering, as defined by Prof. Scribner, a much more natural classification than the old one based on the presence or absence of the awn, are closely related, variable and not always easy to distinguish clearly. As between *M. mexicana* and the other two, a serviceable and constant character is found in the culm, which in the former, is glabrous throughout and in the two latter, minutely puberulent below the nodes.—C. A. WEATHERBY.

M. CAPILLARIS (Lam.) Trin. Cheshire (A. E. Blewitt). Otherwise known only from New Haven.

SPOROBOLUS NEGLECTUS Nash. Kent (Weatherby).

S. UNIFLORUS (Muhl.) Scribn. & Merr. Fairfield and Easton (Eames). In the Catalogue not reported from Fairfield Co.

(To be continued.)

ADDITIONS TO THE FLORA OF CONNECTICUT.

(Continued from page 110.)

AGROSTIS ALBA L. The teratological form known as *A. sylvatica* L. is plentiful at one locality in Stratford (Eames).

A. ALBA L., var. ARISTATA Gray. Seymour (Harger). Occasional in the southwestern part of the state where, however, it constantly intergrades with the typical form.

A. PERENNANS (Walt.) Tuckerm. The weak or decumbent form with looser panicles and lax blades, which has been separated as *A. Schweinitzii* Torr. is occasional in moist woods throughout.

A. CANINA L. Franklin (R. W. Woodward). In the Catalogue not reported east of the Connecticut valley. A peculiar autumnal form producing tufts of leaves from the nodes occurs at Sharon (Bissell, R. W. Woodward and Weatherby, RHODORA, xiii. 30).

† APERA SPICA-VENTI (L.) Beauv. Roadside, Bridgeport (Eames). Adventive from Europe.

CINNA LATIFOLIA (Trev.) Griseb. Pistapaug Mt., Durham (Bissell). Previously known only from the northwestern part of the state.

† AVENA FATUA L. Two or three clumps in newly-seeded grass-land, East Windsor (Bissell), Bridgeport (Eames).

† A. PUBESCENS Huds. Plentiful at one station, Woodbury (Harger). Fugitive or adventive from Europe.

SPARTINA MICHAUXIANA Hitchc. South Windsor (Bissell), New Hartford and Newtown (A. E. Blewitt). Extensions of range northward.

PHRAGMITES COMMUNIS Trin. Oxford (Harger).

* ERAGROSTIS PECTINACEA (Michx.) Steud., var. SPECTABILIS Gray. Sandy wastes on the coast: Bridgeport (C. K. Averill, Eames). Probably not rare.

MELICA STRIATA (Michx.) Hitchc. Winchester (A. E. Blewitt).

BRIZA MEDIA L. Old Lyme (A. E. Blewitt).

CYNOSURUS CRISTATUS L. Hartford (J. P. Brace, 1861; specimen in Herb. Williams College: RHODORA, xvi. 87). Well established in grass-land: Branford and Fairfield, not rare in newly seeded lawns, whence it readily spreads (Eames).

* GLYCERIA FERNALDII (Hitchc.) St. John. RHODORA, xix. 75 (1917). *G. pallida* (Torr.) Trin., var. *Fernaldii* Hitchc. RHODORA,

viii. 211 (1906). Guilford (W. R. Dudley; specimen in Herb. Yale University), East Hartford (Weatherby).

PUCCINELLIA FASCICULATA (Torr.) Bickn. *P. Borreri* (Bab.) Hitchc. Along the coast: rare eastward, becoming occasional westward.

P. DISTANS (L.) Parl. Rare. Sea beaches and borders of salt marshes: East Haven (Harger), Orange (Bissell), Bridgeport (Eames).

P. PAUPERCULA (Holm) Fernald & Weatherby, var. *ALASKANA* (Scribn. & Merr.) Fernald & Weatherby. *RHODORA*, xviii. 18 (1916). *P. angustata* Rand & Redfield, not *Poa angustata* R. Br. Rare. Shore of Blackhall River, Old Lyme (Graves).

The genus *Puccinellia* is here treated according to the revision by Fernald & Weatherby (*RHODORA*, xviii. 1-22), much of the material referred in the Catalogue to *P. distans* being here included under *P. fasciculata* (*P. Borreri* of the Catalogue).

Our species as recognized here may be distinguished by the following key (adapted from Fernald & Weatherby):—

- A. Lower branches of the comparatively short panicle (0.2-1.6 dm. long) densely flowered nearly to the base or at least below the middle; lemmas thick and coriaceous, without a broad hyaline tip; the midnerve reaching the apex of the lemma, often excurrent as a very short mucro *P. fasciculata*
- A. Lower branches of the panicle floriferous chiefly above the middle; lemmas thin and membranaceous in texture, or at least with a broad hyaline tip; the midnerve not excurrent. B.
- B. Lemmas erose-ciliolate or serrulate under a lens. *P. distans*
- B. Lemmas essentially entire. *P. paupercula*, var. *alaskana*

* *FESTUCA RUBRA*, var. *SUBVILLOSA* Mert. & Koch. Dry, rather barren hillside pastures and in a lawn: Franklin (R. W. Woodward, *RHODORA*, xiii. 70).

† *FESTUCA OVINA* L., var. *DURIUSCULA* (L.) Koch. Established in grass-land about an old house at Branford (Eames), East Haven and Southington (Andrews).

BROMUS HORDEACEUS L. Grass-land and about lawns in Bridgeport and Fairfield (Eames).

† *B. HORDEACEUS* L., var. *LEPTOSTACHYS* (Pers.) Beck. Bridgeport and Fairfield, growing with the species in about equal numbers. Apparently introduced in grass-seed (Eames).

B. COMMUTATUS L. New London (Graves), New Haven (Harger), Waterbury and Woodbury (A. E. Blewitt). Occasional in southwestern Connecticut (Eames).

† *B. ARVENSIS* L. Well established in several dry fields, roadsides and wastes: Bridgeport (Eames). Introduced from Europe.

† *B. JAPONICUS* Thunb. Naugatuck (A. E. Blewitt). Fugitive from Eurasia.

B. INCANUS (Shear) Hitchc. Willimantic (G. E. Nichols), Colchester, Southbury and Oxford (Harger), Windsor (Weatherby), Waterbury (A. E. Blewitt).

B. INERMIS Leyss. Bridgeport (Eames).

† *B. INERMIS* Leyss., var. *ARISTATUS* Schur. Winchester (A. E. Blewitt), Bridgeport (Eames).

† *B. MARGINATUS* Nees. Waste ground, Naugatuck (A. E. Blewitt). Fugitive from the northwestern United States.

LOLIUM MULTIFLORUM Lam. Bridgeport (Eames).

† *L. MULTIFLORUM* Lam., var. *DIMINUTUM* Mutel, Fl. France, iv. 139 (1837). *L. Boucheanum* Kunth. Fields and roadsides: East Haven (Bissell), Bridgeport (Eames), Greenwich (Bissell & Weatherby). This has been confused with *L. perenne*. Forms intermediate between this and the typical form occur at Fairfield and Bridgeport (Eames).

The above forms are difficult to distinguish in herbarium material by any clear characters, but are kept apart as sub-species or even as species by practically all recent European authors on the ground that one is annual and the other perennial. The specimens cited under the variety, except that from Greenwich, were referred to *L. perenne* in the Catalogue.

The following key may help to distinguish these plants:—

- A. Unexpanded leaves folded; rachis usually smooth except on the angles; glumes of the upper spikelets exceeding the contiguous floret, usually more than half the length of the spikelet. *L. perenne*
- A. Unexpanded leaves rolled in from each margin toward the mid-vein; rachis usually roughened; glumes of the upper spikelets not exceeding the contiguous spikelet. B.
- B. Annual; spikelets 10–20-flowered; glumes of the lowest spikelets often exceeding the contiguous floret. *L. multiflorum*
- B. Perennial; spikelets 5–8(9)-flowered; none of the glumes exceeding the contiguous floret. *L. multiflorum*, var. *diminutum*

† *L. TEMULENTUM* L., var. *LEPTOCHAETON* A. Br. Associated with the typical form, Bridgeport (Eames).

† *HORDEUM TRIFURCATUM* Jacq. Rare. Waste ground and fence-rows: Berlin and Southington (Andrews).

† *H. CAPUT-MEDUSAE* (L.) Cosson. Formerly abundant along a roadside at Bridgeport, but the station has since been destroyed (Eames). Fugitive from Europe.

† *H. MURINUM* L. Wall Barley. Way Bent. Waste ground:

Naugatuck (A. E. Blewitt, RHODORA, xiv, 163). Fugitive from Europe.

* *ELYMUS HALOPHILUS* Bickn. Occasional or frequent along the coast in various moist or dry situations (Eames).

E. AUSTRALIS Scribn. & Ball. Thompson (Weatherby). Previously reported only from New Haven.

ELEOCHARIS TUBERCULOSA (Michx.) R. & S. Killingworth (Weatherby), Ellington (Harger), South Windsor (C. W. Vibert & Weatherby). Extension of range northwestwardly.

* *SCIRPUS SMITHII* Gray, var. *SETOSUS* Fernald. Wet alluvial soil, Voluntown (Bissell, RHODORA, xiii, 30).

S. TORREYI Olney. South Windsor (C. W. Vibert), Waterbury (A. E. Blewitt). In the Catalogue reported only from Lyme.

* *S. OCCIDENTALIS* (Watson) Chase. Borders of ponds and slow streams: Hartford (Chas. Wright; specimen in Herb. New England Bot. Club), Goshen (Bissell & Weatherby), Sharon and Salisbury (Eames & C. C. Godfrey, RHODORA, xvi, 19). At the Goshen station occur both forms mentioned by Mrs. Chase in her description.

* *S. RUBROINCTUS* Fernald, var. *CONFERTUS* Fernald. Wet meadows: Southington (Bissell, RHODORA, xiii, 55), Waterbury and Barkhamsted (A. E. Blewitt).

S. ATROVIRENS Muhl. Occasional in western Connecticut.

* *S. PECKII* Britton. Low, moist meadows: Barkhamsted and Winchester (A. E. Blewitt, RHODORA, xv, 98).

S. PEDICELLATUS Fernald, var. *PULLUS* Fernald. Bank of Farmington River at New Hartford (A. E. Blewitt).

* *S. LONGII* Fernald. RHODORA, xiii, 6 (1911). Borders of sloughs in sand-plain: South Windsor (C. W. Vibert).

RYNCHOSPORA FUSCA (L.) Ait. f. Killingworth (W. R. Dudley), Haddam (F. W. Hall), South Windsor (Weatherby), Norfolk (J. P. Brace; specimen in Herb. Williams College: RHODORA, xvi, 86). The last station a northwesterly extension of range.

R. CAPILLACEA Torr. Open, grassy pond-margin, Salisbury (Mrs. C. S. Phelps, RHODORA, xiii, 30).

* *C. SCOPARIA* Schkuhr, var. *SUBTURBINATA* Fernald & Wiegand. RHODORA, xiv, 116 (1912). Dry or damp sandy soil: New London and Franklin (Graves). The perigynia in these specimens are shorter than is usual in *C. scoparia*.

C. CRISTATA Schwein. North Canaan (A. E. Blewitt), Greenwich

(Bissell & Weatherby), Bridgeport (Eames). In the Catalogue not reported south of Huntington.

C. ALBOLUTESCENS Schwein. South Windsor (A. E. Blewitt), Bridgeport and Fairfield (Eames). In the Catalogue reported only from New London and Tolland Counties.

* *C. STRAMINEA* Willd., var. *ECHINODES* Fernald. Rich, open ground, Beacon Falls (A. E. Blewitt).

C. BICKNELLI Britton. Apparently occasional throughout the state, but usually in small quantity at any place.

* *C. FESTUCACEA* Schkuhr. Rare. Dry fields: Southington (Andrews), Thomaston and Waterbury (A. E. Blewitt).

C. BEBBI Olney. Canaan (R. W. Woodward), Sharon (H. S. Clark), New Fairfield (Harger) North Canaan, Newtown, and Brookfield (A. E. Blewitt), Greenwich (Bissell & Weatherby). In the Catalogue reported only from Salisbury.

C. BRUNNESCENS Poir. Waterbury (A. E. Blewitt), Stafford (A. W. Driggs). Not previously reported east of the Connecticut River.

C. DEWEYANA Schwein. Durham (Weatherby, Eames & C. C. Godfrey), Guilford (Eames & C. C. Godfrey). An extension of range southeastward.

C. TRISPERMA Dewey, var. *BILLINGSII* Knight. Much more common than was supposed at the time of publication of the Catalogue. It is a characteristic plant of cold sphagnum bogs where it takes the place of the typical form, which prefers swampy, but less sphagnum woods. Occasionally, however, the two grow together, showing that the variety is not merely an ecological state.

† *C. MURICATA* L. Waste ground, Bridgeport (Eames). Introduced from Europe.

C. TENELLA Schkuhr. Waterbury and Danbury (A. E. Blewitt).

* *C. ALOPECOIDEA* Tuckerm. Border of swale, North Canaan (Harger).

C. DIANDRA Schrank. Open swamps: Suffield and Sharon (Harger), Granby (Weatherby). Previously reported only from Salisbury.

C. DIANDRA Schrank, var. *RAMOSA* (Boott) Fernald. Abundant in a boggy pasture, North Canaan (A. E. Blewitt). Previously reported only from Salisbury.

* *C. LAEVIVAGINATA* (Küenth.) Mackenzie in Britton & Brown, Ill. Fl. Ed. 2, i. 371 (1913). Open marshes and meadows: "Connecticut" (Chas. Wright, 1878, the exact locality uncertain), Durham

and Guilford (Eames & C. C. Godfrey), Cromwell and Salisbury (Weatherby), Sharon (Harger), Danbury (A. E. Blewitt) and frequent or locally common in southwestern Connecticut. An Alleghenian species closely related to, and previously confounded with, *C. stipata*, from which it differs in having the hyaline band of the sheaths smooth, not puckered, and with a conspicuous cartilaginous apex, which is yellow after drying, and in its longer perigynia with beak equalling or longer than the body.

C. AQUATILIS Wahlenb. Middlebury (Harger).

C. STRICTA Lam., var. *CURTISSIMA* Peck. Middletown (Joseph Barratt; specimen in Herb. Wesleyan University).

C. STRICTA Lam., var. *DECORA* Bailey. Waterbury (A. E. Blewitt). An extension of range westward.

C. POLYGAMA Schkuhr. Waterbury (H. J. Bassett, 1862), Fairfield (Eames).

* *C. BUSHII* Mackenzie. Bull. Torr. Bot. Club, xxxvii. 241 (1910). Rare. Dry fields: Milford and Bridgeport (Eames).

C. UMBELLATA Schkuhr. Common or frequent over most of the state in dry fields or open woods.

C. UMBELLATA Schkuhr, var. *TONSA* Fernald. Old Lyme (Bissell & Weatherby), Middletown (Weatherby). In the Catalogue reported from a single station in North Stonington.

C. UMBELLATA Schkuhr, var. *BREVIROSTRIS* Boott. Ledyard (Graves), Old Lyme (Bissell & Weatherby), Franklin, New Haven and "towns west" (R. W. Woodward, RHODORA, xiii. 68; xv. 95), Roxbury (Weatherby). In the Catalogue reported only from Cheshire.

* *C. NOVAE-ANGLIAE* Schwein. Rocky hillside woods, Norfolk (Bissell & R. W. Woodward, RHODORA, xiii. 30).

C. LIMOSA L. Suffield (G. E. Nichols).

C. PTYCHOCARPA Steud. Guilford (W. R. Dudley; specimen in Herb. Yale University). Previously reported only from Waterford.

C. LAXIFLORA Lam., var. *GRACILLIMA* Boott. Farmington (Chas. Wright; specimen in Herb. New England Bot. Club). In the Catalogue reported only from western Connecticut.

C. LEPTONERVIA Fernald. RHODORA, xiv. 214 (1914). *C. laxiflora* Lam., var. *leptonervia* Fernald. Cheshire and Waterbury (A. E. Blewitt).

C. HITCHCOCKIANA Dewey. Cheshire and Woodbury (A. E.

Blewitt), Hartland (Bissell & Weatherby). Previously reported only from the trap ridges of central Connecticut.

C. GLAUCODEA Tuckerm. Hamden (A. E. Blewitt), Guilford (Eames & C. C. Godfrey).

C. GRANULARIS Muhl. Stratford (Eames), Greenwich (Bissell & Weatherby). Southwestern extensions of range.

C. FLAVA L. Killingworth (G. H. Bartlett), North Branford (Harger), Greenwich (Bissell & Weatherby). Extensions of range to the east and south.

C. FLAVA L., var. *RECTIROSTRA* Gaudin. Margins of Blakeley's Pond, Norfolk (A. E. Blewitt), and Dog Pond, Goshen (Bissell & Weatherby). Not previously reported west of the Connecticut River. At Dog Pond it fruits notably later than the typical form, with which it grows.

C. DEBILIS, var. *RUDGEI* \times *VIRESCENS*. Franklin (R. W. Woodward, *RHODORA*, xiii. 69).

C. DEBILIS Michx., var. *INTERJECTA* Bailey. Guilford (W. R. Dudley; specimen in Herb. Yale University). In the Catalogue reported only from Southington.

C. TRICHOCARPA Muhl. Middletown (Joseph Barratt, 1833; specimen in Herb. Wesleyan University), Southbury (Harger, *RHODORA*, xv. 66), Newtown (A. E. Blewitt), Oxford (Harger). Extensions of range to the east and south.

C. SQUARROSA L. Sharon (H. S. Clark), Greenwich (Eames & W. H. Hoyt). In the Catalogue not reported from Litchfield or Fairfield Counties.

C. TYPHINA Michx. Fairfield (Eames). Previously reported only from the central lowland.

* *C. SUBULATA* Michx. Sphagnous swamp in partial shade, Cromwell (Dr. E. J. Thompson, *RHODORA*, xiii. 78).

C. BULLATA Schkuhr, var. *GREENEI* (Boeckl.) Fernald. North Canaan (A. E. Blewitt). Previously known only from east of the Connecticut River.

ARISAEMA TRIPHYLLUM (L.) Schott. The form with the lateral leaflets lobed occurs at Cromwell (Dr. E. J. Thompson, *RHODORA*, xiii. 78), Oxford (Harger) and Salisbury (Weatherby).

The form described as var. *pusillum* Peck occurs at Middlefield and Windsor (Weatherby) and is occasional in the western part of the state.

The form described as *A. Stewardsonii* Britton occurs on shaded river-banks and in wet woods at South Windsor (C. W. Vibert), Watertown (Harger, Weatherby), Wilton (G. P. Ells), Salisbury (Weatherby).

* *ERIOCAULON PARKERI* Robinson. Rare. Tidal flats of Mill River, New Haven and Hamden (Eames, 1899) and similar situations along the Housatonic River, Stratford (Eames). Previous to its recognition at these stations known only from the estuaries of the lower Delaware River and Chesapeake Bay. No admixture with *E. septangulare* has been observed, the latter appearing to be confined to freshwater shores beyond tidal influence.—E. H. EAMES.

XYRIS FLEXUOSA Muhl. Change the statement of range in the Catalogue to read:—Occasional in New London Co. and on the sand-plains of central Connecticut; rare elsewhere, reaching Union (Bissell), Killingworth (Harger et al.), Ellington (Harger).

X. SMALLIANA Nash. Voluntown (Graves), Haddam (W. R. Dudley; specimen in Herb. Yale University).

† *TRADESCANTIA REFLEXA* Raf. Waste ground, Naugatuck (A. E. Blewitt, RHODORA, xiv. 163). Fugitive from the southwestern United States.

PONTEDERIA CORDATA L., var. *ANGUSTIFOLIA* Torr. East Lyme (Bissell), Groton (Harger), Suffield (Eames & C. C. Godfrey).

JUNCUS TENUIS L., var. *ANTHELATUS* Wiegand. Franklin (R. W. Woodward), New Fairfield (Harger). Occasional near the coast in southwestern Connecticut.

J. DICHOTOMUS Ell. Fairfield (Eames).

JUNCUS DICHOTOMUS Ell., var. *PLATYPHYLLUS* Wiegand. Fairfield (Eames). Previously reported only from Groton.

* *J. EFFUSUS* L., var. *CONGLOMERATUS* Engelm. Gray Man. Ed. 5. 537 (1867). RHODORA, xii. 85. Rare. Sphagnous meadows: Voluntown (Bissell, RHODORA, xiii. 31), Franklin (R. W. Woodward, RHODORA, xii. 86).

* *J. EFFUSUS* L., var. *DECIPIENS* Buchenau. Rare. Moist grassy roadside, Madison (Weatherby).

J. BRACHYCEPHALUS (Engelm.) Buchenau. In moist or dry calcareous soils southward in the Housatonic valley to New Milford and Sherman (Eames).

J. CANADENSIS J. Gay, var. *SUBCAUDATUS* Engelm. Ledyard (Graves), Killingly (Bissell & Weatherby), Colebrook (M. L. Fernald). Eastern and western extensions of range.

* *UVULARIA GRANDIFLORA* Smith. Rare. Low, rich woods, Salisbury (Mrs. J. R. Hubbard).

† *ALLIUM SCHOENOPRASCUM* L. Chives. Rather freely spontaneous in waste ground near a garden, Middlebury (Harger). Fugitive from Europe.

HOSTA JAPONICA (Thunb.) Aschers. Bridgeport (Eames).

HEMEROCALLIS FLAVA L. Newtown and Danbury (Harger) and rare to occasional throughout southwestern Connecticut.

LILIUM SUPERBUM L. Plainfield (Harger), Voluntown (Harger et al.) and frequent southerly along the Quinebaug River.

STREPTOPUS ROSEUS Michx. Guilford (W. R. Dudley; specimen in Herb. Yale University). Extension of range southeastward.

* *DIOSCOREA PANICULATA* Michx., var. *GLABRIFOLIA* Bartlett. Bur. Pl. Industr. U. S. Dept. Agric. Bull. clxxxix. 17 (1910). "Middlesex Co." (S. B. Buckley, 1835), "New Haven Co." (Robbins). This variety, recently described as distinguishable from *D. paniculata* Michx. (*D. villosa* L.), differs only in having the leaves entirely glabrous.

† *GYMNADENIA CONOPSEA* R. Br. Litchfield (Miss Anna M. Vail, Bull. Torr. Bot. Club, xxxvii. 432). A single specimen in the Herbarium of the Torrey Botanical Club — the only known collection from North America. Miss Vail does not now remember just when nor where it was found. It may possibly have been introduced by some lover of flowers; and collectors should be on the lookout for it about Litchfield, that it may be, if possible, rediscovered and its status definitely made out.

HABENARIA MACROPHYLLA Goldie. Colebrook (G. E. Nichols).

H. BLEPHARIGLOTTIS (Willd.) Torr. East Windsor (J. W. Robbins, 1825; specimen in Herb. Yale University), South Windsor, in great quantity in 1916 (C. W. Vibert), Suffield (Eames & C. C. Godfrey, C. W. Vibert).

POGONIA AFFINIS Austin. Waterford (Miss Florence Griswold), Middletown (Miss G. H. Miner).

SPIRANTHES LUCIDA (H. H. Eaton) Ames. Extends southward to Huntington on tidewater. (Eames) and Wilton (G. P. Ells).

S. BECKII × *GRACILIS*. Bridgeport (J. F. Moore. E. H. Eames, *RHODORA*, xviii. 239).

EPIPACTIS REPENS (L.) Crantz, var. *OPHIODES* (Fernald) A. A. Eaton. Guilford (W. R. Dudley, 1904; specimen in Herb. Yale University). Not previously reported south of Southington.

E. TESSELATA (Lodd.) A. A. Eaton. Barkhamsted and Beacon Falls (A. E. Blewitt). The latter station a southward extension of range.

SALIX PENTANDRA L. Bridgeport (Eames), New Haven (A. E. Blewitt).

S. SERISSIMA (Bailey) Fernald. New Haven (J. A. Allen; specimen in Herb. Conn. Agr. Exp. Sta. RHODORA, xiv. 80). In the Catalogue reported only from the northwestern part of the state.

S. SUBSERICEA (Anders.) Schneider. Hartland (Bissell & Weatherby).

* *S. ROSTRATA* Richards., var. *CAPREIFOLIA* Fernald. RHODORA, xvi. 177 (1914). By a woodland path in rather wet ground, Barkhamsted (A. E. Blewitt).

* *MYRICA GALE* L., var. *SUBGLABRA* (Chevalier) Fernald. RHODORA, xvi. 167 (1914). This variety with the leaves glabrous or glabrate beneath is now known from Norwich (W. A. Setchell) and Salisbury (Weatherby), and probably occurs elsewhere.

BETULA LENTA L. A form which is somewhat intermediate between and possibly a hybrid of, this species and *B. lutea* has been described as *B. allegheniensis* Britton and is rare in the western part of the state (Eames).

† *B. NIGRA* L. Several young trees on reclaimed land at Bridgeport, where probably introduced (Eames).

QUERCUS MUHLENBERGII Engelm. Rocky hillside in Wilton (W. J. Comstock, G. P. Ells and H. W. Beers).

Q. RUBRA L., var. *AMBIGUA* (Michx.) Fernald. Oxford and Seymour (Harger), Cornwall (R. C. Benedict; specimen in Herb. N. Y. Bot. Gard.). Probably of wider distribution.

BROUSSONETIA PAPYRIFERA (L.) Vent. An additional station in Norwalk (Eames). Roadsides: Stamford and Greenwich (W. H. Hoyt).

RUMEX MEXICANUS Meisn. Old Lyme (Graves, A. E. Blewitt), Cheshire and Naugatuck (A. E. Blewitt), Salisbury (Mrs. C. S. Phelps, RHODORA, xvi. 96). Occasional in the southwestern part of the state (Eames).

R. ALTISSIMUS Wood. In the fresh green state the fruiting calyx commonly bears a uniformly large tubercle on each lobe; two of them shrinking but little more than the other until full maturity — a fact that has given cause for some confusion in field studies of this species. Occasional on banks and shores along tidewater of the Housatonic River (Eames).

POLYGONUM LAPHATHIFOLIUM L., var. *NODOSUM* Meisn. Rare. Waste ground, Bridgeport (Eames).

P. ACRE, HBK., var. *LEPTOSTACHYUM* Meisn. Kent and New Milford (Eames). Frequent at Oxford (Harger).

* *P. HYDROPIPEROIDES* Michx., var. *STRIGOSUM* Small. Rare. Border of Ponds: Voluntown (R. W. Woodward), Hartford (A. W. Driggs), Huntington (Harger).

P. DUMETORUM L. Reported from many stations and probably occasional in dry, rocky woods over much of the state.

CHENOPODIUM GLAUCUM L. Naugatuck (A. E. Blewitt), Danbury (Harger), North Canaan (M. L. Fernald), Salisbury (Eames & C. C. Godfrey). Occasional in southwestern Connecticut (Eames). Previously reported only from Bridgeport.

C. BOSCIANUM Moq. Scotland and Salisbury (Weatherby).

C. LEPTOPHYLLUM Nutt. Haddam (C. M. Child; specimen in Herb. Wesleyan University). Waste ground, Waterbury (A. E. Blewitt).

† *SPINACIA OLERACEA* Mill. Spinach. Rare in waste grounds: Stratford and Fairfield (Eames). Fugitive from Europe.

* *ATRIPLEX PATULA* L., var. *LITTORALIS* (L.) Gray. Sea-beaches: occasional in southeastern Connecticut (Graves), Fairfield (H. S. Clark), South Norwalk (Bissell), Greenwich (Eames & C. C. Godfrey). In the Catalogue included under typical *A. patula*.

AMARANTHUS SPINOSUS L. Waterbury (A. E. Blewitt).

ACNIDA TUBERCULATA Moq. Groton (Graves), Naugatuck (A. E. Blewitt), Bridgeport and Norwalk (Eames).

† *CELOSIA CRISTATA* L. Rare in waste ground at Fairfield (Eames). Fugitive from the tropics.

ONYBAPHUS NYCTAGINEUS (Michx.) Sweet. Naugatuck and Waterbury (A. E. Blewitt). Well established in vacant lots at West Haven, Orange (Harger, Mrs. C. H. Lyman). Previously reported only from Granby.

O. HIRSUTUS (Pursh) Sweet. Milford (Eames).

* *ANYCHIA POLYGONOIDES* Raf. Rare. Grass-land, East Hartford (C. C. Hammer). West Peak, Meriden (Miss Celia A. Shepard; specimen in Herb. Conn. Agr. Exp. Sta.).

* *SPERGULARIA CANADENSIS* (Pers.) G. Don. Groton (Bissell, *RHODORA*, xii. 162).

* *S. SALINA* J. & C. Presl. Groton (Bissell, l. c.).

S. LEIOSPERMA (Kindberg) F. Schmidt. Common in saline soil along

the coast. Discussion of this and the two preceding species will be found in RHODORA, xii. 157-162.

SAGINA DECUMBENS (Ell.) Torr. & Gray. Portland (A. E. Blewitt).

* STELLARIA BOREALIS Bigel., var. ISOPHYLLA Fernald. RHODORA, xvi. 150 (1914). Cromwell and Winchester (Bissell), Guilford (G. H. Bartlett & Harger), Southington (Andrews), Oxford (Harger).

S. BOREALIS Bigel., var. FLORIBUNDA Fernald. RHODORA, xvi. 151 (1914). Orange (Weatherby), Oxford (Harger).

† S. GRAMINEA L., var. LATIFOLIA Peterm. East Hartford (Weatherby), Southington (Andrews), Salisbury (Bissell), Milford and Bridgeport (Eames). Introduced from Europe.

† S. AQUATICA L. Rare. Moist banks of the Housatonic River below highwater mark, sparingly at two stations (Harger). Fugitive or adventive from Europe.

* SILENE ANTIRRHINA L., forma DEANEANA Fernald. RHODORA, xvii. 96 (1915). Occasional in dry soil. Differs from the typical form in the entire absence of the glutinous band on the internodes.

† S. GALICA L., var. QUINQUEVULNERA Koch. Rare. Cultivated fields, Southington (Andrews). Fugitive from Europe.

GYPSOPHILA MURALIS L. Roadside, Chester (Graves).

NUPHAR ADVENA (Ait.) R. Br. Occasional in the coastal region of southwestern Connecticut (Eames).

N. VARIEGATUM Engelm. Common or occasional throughout. Recent studies have shown that the name *Nuphar advena* should be restricted to the larger plant having mostly emersed leaves with open sinus.

N. MICROPHYLLUM (Pers.) Fernald. RHODORA, xix. 111 (1917). Guilford (W. R. Dudley; specimen in Herb. Yale University), Plymouth (H. J. Bassett, 1861), Stamford (Eames & C. C. Godfrey). In the Catalogue not reported from Fairfield Co.

NYMPHAEA TUBEROSA Paine. Rogers Pond, Old Lyme (Graves).

(To be continued.)

ADDITIONS TO THE FLORA OF CONNECTICUT.

(Continued from page 130.)

RANUNCULUS ALLEGHENIENSIS Britton. Occasional in northwestern Connecticut.

* *THALICTRUM DASYCARPUM* Fisch. & Lall. Thickets: Groton (Weatherby), New London (Graves), Franklin (R. W. Woodward, RHODORA, xv. 95).

* *HEPATICA AMERICANA* (DC.) Ker, forma *CANDIDA* Fernald. RHODORA, xix. 46 (1917). Occasional with the typical form.

H. ACUTILOBA DC. Simsbury, 1837 (specimen in Shurtleff herb. at Wesleyan University; no collector given). In the Catalogue reported only from western Connecticut.

† *CLEMATIS FLORIDA* Thunb. Woodbridge (Chas. F. Hull). The collector states that this species has been growing beside a brook for several years. Frequently cultivated. Native of Japan.

C. VERTICILLARIS DC. Killingly (C. H. Knowlton, RHODORA, xiii. 31). In the Catalogue not reported from Windham Co.

COPTIS TRIFOLIA (L.) Salisb. Stamford (W. H. Hoyt). In the Catalogue not reported near the coast west of New Haven.

* *ACTAEA RUBRA* (Ait.) Willd., forma *NEGLECTA* (Gillman) Robinson. Rich, rocky woods on the north slope of Canaan Mt., North Canaan (Harger & Weatherby). Also reported from Mt. Totoket, North Branford (O. Harger in "Berzelius" Catalogue).

At the station in North Canaan a single plant of the form was found growing with *A. rubra* and *A. alba*. The berries of *A. rubra* and forma *neglecta* were mature. Those of *A. alba* were half-grown. Growing near was another plant with the slender pedicels of *A. rubra* but with the half-grown fruit of *A. alba* and with leaves more nearly like the latter. The different combinations of characters suggest that one or both of these forms may be of hybrid origin.—E. B. HARGER.

SASSAFRAS VARIIFOLIUM (Salisb.) Ktze. Rare in dry woods, Oxford (Harger). Frequent near the coast.

* *S. VARIIFOLIUM* (Salisb.) Ktze., var. *ALBIDUM* (Nutt.) Fernald. RHODORA, xv. 16 (1913). Stonington (Bissell, Harger & Weatherby). Frequent at Oxford (Harger). This variety is distinguished by its glabrous and glaucous leaves and twigs. The ranges of this and of the preceding are not definitely known.

DRABA CAROLINIANA Walt. Middletown (Joseph Barratt), Canaan (Bissell & Weatherby), Salisbury (Mrs. C. S. Phelps). Extensions of range northward.

ALYSSUM ALYSSOIDES L. Middlebury (Harger), Waterbury (A. E. Blewitt).

LEPIDIUM DRABA L. One plant in a field, East Granby (E. J. Winslow & A. F. Hill). Abundant by roadsides, Norwalk (Eames).

† *L. PERFOLIATUM* L. Old cultivated field, Barkhamsted (A. E. Blewitt). Fugitive from Europe.

† *CORONOPUS DIDYMUS* (L.) Sm. Well established locally about the harbor at Westport (Eames). Adventive from Europe.

CAMELINA MICROCARPA Andr. Adventive at Middlebury as a persistent weed on borders of cultivated fields and along paths (Harger). In the Catalogue reported only as fugitive.

NESLIA PANICULATA (L.) Desv. Waterbury (A. E. Blewitt).

CONRINGIA ORIENTALIS (L.) Dumort. Waterbury and Barkhamsted (A. E. Blewitt). Apparently increasing in frequency about the more settled districts but nowhere well established (Eames).

SISYMBRIUM OFFICINALE (L.) Scop. Several additional stations in southwestern Connecticut.

† *S. INCISUM* Engelm., var. *HARTWEGIANUM* (Fourn.) Wats. Waste ground where street sweepings had been dumped, Waterbury (A. E. Blewitt). Fugitive from the northwestern United States.

S. SOPHIA L. New Haven (J. P. Brace, *RHODORA*, xvi. 86).

DENTARIA MAXIMA Nutt. Hartland (Bissell & Weatherby).

ARABIS HIRSUTA (L.) Scop. Guilford (G. H. Bartlett), New Haven (J. A. Allen; specimen in Herb. Conn. Agr. Exp. Sta.), Ridgefield, on limestone (Eames & C. C. Godfrey). Not previously reported near the coast west of Old Lyme or in Fairfield Co.

* *A. VIRIDIS* Harger. *RHODORA* xiii. 36 (1911). Dry ledges, more often on trap: Scotland (Weatherby), East Granby (Harger), Hamden (A. E. Blewitt), Woodbury (Eames & C. C. Godfrey), Southbury (type station, Harger).

This species, formerly included under *A. larrigata*, may be distinguished from that species by its green color, lyrate-pinnatifid basal and lower stem-leaves which are not clasping, and by its much later flowering season, about May 20th to July 1st.

PODOSTEMUM CERATOPHYLLUM Michx. Plymouth (H. J. Bassett, 1861). In the Catalogue not reported from Litchfield Co.

TIARELLA CORDIFOLIA L. Bank of Saugatuck River in Weston (W. J. Comstock). An extension of range southwestward.

MITELLA NUDA L. Norfolk and Goshen (Eames & C. C. Godfrey).

PHILADELPHUS CORONARIUS L. Near an old cellar, Beacon Falls (A. E. Blewitt).

P. INODORUS L. With the last, Beacon Falls (A. E. Blewitt).

† HYDRANGEA PANICULATA Sieb. One thriving plant near the railway at Stamford (W. H. Hoyt). Fugitive from the southern states.

† H. QUERCIFOLIA Bartr. A large and thrifty colony on a hillside in Norwalk, where probably spread from cultivation many years ago (Eames). Native of the Gulf states and not usually considered hardy anywhere in New England.

RIBES NIGRUM L. Huntington and Easton (Eames).

* R. TRISTE Pall., var. ALBINERVIVM (Michx.) Fernald. Rare. In a cold swamp, Cornwall (Weatherby).

PHYSOCARPUS OPULIFOLIUS (L.) Maxim. Escaped from cultivation at Bridgeport and Norwalk (Eames).

SPIRAEA PRUNIFOLIA Sieb. & Zucc. This usually occurs in the double-flowered form common in cultivation, but the single-flowered type is well established along a roadside in Fairfield (Eames).

CYDONIA JAPONICA (Thunb.) Pers. Roadside, Seymour (Harger).

* AMELANCHIER STOLONIFERA Wiegand. RHODORA, xiv. 144 (1912). Rare. Dry sandy or rocky ground: Waterford and East Lyme (Graves), Old Lyme (Bissell & Weatherby), Tolland and East Hartford (Weatherby), Suffield (Harger), Southington (Bissell, RHODORA, xiv. 146). In the Catalogue included under *A. oblongifolia*.

A. CANADENSIS (L.) Medic. *A. canadensis* (L.) Medic., var. *tomentula* Sarg. Extends across the western part of the state. Rare near the coast, becoming occasional northward.

* A. SANGUINEA (Pursh) DC. *A. spicata* Gray's Man. Ed. 7. *A. rotundifolia* Roem. Rare. Calcareous ledges, on the bank of the Housatonic River, Salisbury (A. E. Blewitt & Harger).

CRATAEGUS FOETIDA Ashe. Occasional in New London Co. (Graves), East Windsor (Bissell), Southington (Andrews).

* C. ROTUNDIFOLIA Moench., var. FAXONI (Sarg.) Eggleston. Occasional in New London Co. (Graves), Killingly (Bissell).

* C. ROANENSIS Ashe. Rare. Old pasture, Hartford (Bissell).

C. MACROSPERMA Ashe. Frequent and widely distributed.

* *C. MACROSPERMA* Ashe, var. *PASTORUM* (Sarg.) Eggleston. Litchfield (Bissell).

C. MACROSPERMA Ashe, var. *MATURA* (Sarg.) Eggleston. Widely distributed.

* *C. MACROSPERMA* Ashe, var. *VIRIDIMONTANA* (Sarg.) Eggleston. *C. viridimontana* Sarg. Litchfield and Salisbury (Bissell).

* *C. NAPAEA* Sarg. should stand as a good species.

* *C. PRUINOSA* (Wendl.) K. Koch, var. *INCISA* (Sarg.) Eggleston. Included in the Catalogue among the forms of uncertain status as *C. incisa* Sarg.

* *C. DELTOIDES* Ashe. East Windsor (Bissell), Washington (Miss Knowles).

C. JESUPI Sarg. should be omitted from our flora.

C. HOLMESIANA Ashe. Hartford (Bissell).

C. PRINGLEI Sarg. should be omitted from our flora (as to the typical form only).

C. POLITA Sarg. Newington and Litchfield (Bissell).

* *C. POLITA* Sarg., var. *TATNALLIANA* (Sarg.) Eggleston. Pawcatuck Point, Stonington (Bissell, Harger and Weatherby).

* *C. BRAINERDII* Sarg., var. *EGGLESTONII* (Sarg.) Robinson. Occurs at Stratford and Litchfield (Bissell).

* *C. MACRACANTHA* Lodd., var. *NEOFLUVIATILIS* (Ashe) Eggleston. Occurs at Litchfield and Salisbury (Bissell).

Notes on *Crataegus* are for the most part from specimens determined by W. W. Eggleston.

† *FRAGARIA GRANDIFLORA* Ehrh. Waste ground, Bridgeport (Eames). Fugitive from Europe.

POTENTILLA INTERMEDIA L. Brookfield (A. E. Blewitt).

P. RECTA L. More frequent than stated in the Catalogue and locally abundant.

P. TRIDENTATA Ait. Colebrook (G. E. Nichols).

† *FILIPENDULA ULMARIA* (L.) Maxim., var. *DENUDATA* (Hayne) Maxim. Established along a roadside, Salisbury (Eames & C. C. Godfrey). Native of Europe.

KERRIA JAPONICA (Thunb.) DC. East Lyme (Graves), Westport (Eames).

x / *? *RUBUS NEGLECTUS* Peck. Ledyard (Mrs. C. B. Graves), Waterbury and Barkhamsted (A. E. Blewitt). In the Catalogue reported only from Oxford.

R. PHOENICOLASIUS Maxim. Plainville (Andrews). Several additional stations have been observed in the southwestern part of the state, where, no doubt, it has been partly distributed by birds.

† *R. ROSAEFOLIUS* Smith. Rare. At a time said to have been more than twenty years ago, introduced into a garden in Huntington, where it became a nuisance. Efforts have been made to eradicate it, but a small colony persists in a rocky waste on the premises. The flowers are single and it is said to form some fruit. (Eames and C. C. Godfrey). Native of the Orient.

* *R. CANADENSIS* L. Most of the material referred in the Catalogue to *R. Randii* belongs under this species, which occurs through northern Connecticut as far east as Union (Graves) and as far south as Danbury (A. E. Blewitt). One specimen collected at Salisbury by Bissell agrees well with authentic material of *R. Randii*; but *R. Randii* is probably only a weak form of *R. canadensis*.

AGRIMONIA PARVIFLORA Ait. Stamford (W. H. Hoyt).

A. ROSTELLATA Wallr. Kent (Eames).

ROSA SPINOSISSIMA L. Prospect (A. E. Blewitt), Brookfield (Eames).

R. CANINA L. Portland (Mrs. F. W. Starmer, RHODORA, xiii. 31), Fairfield (Eames), Salisbury (Mrs. C. S. Phelps, RHODORA, l. c.), Stamford (W. H. Hoyt).

R. NITIDA Willd. Plainfield (Bissell, RHODORA, xiii. 31).

* *PRUNUS VIRGINIANA* L., var. *LEUCOCARPA* Wats. Rare. Fence-rows: Southington (Andrews), Seymour (Harger).

P. INSTITUTIA L. Redding (M. L. Fernald, Eames & C. C. Godfrey).

P. NIGRA Ait. River-bank and fields: Salisbury (A. E. Blewitt & Harger), Sharon (Weatherby). Apparently native at the former station.

† *P. AMERICANA* Marsh., var. *MOLLIS* Torr. & Gray. Roadsides and fence-rows: Thompson (Weatherby), Lyme (Harger), East Granby (Bissell, H. S. Clark & Weatherby, RHODORA, xiii. 31), Oxford (Harger), Woodbury (Eames & C. C. Godfrey). Introduced from the central United States. The Oxford station known to be an introduction from Iowa.

† *GYMNOCLADUS DIOICA* (L.) Koch. Kentucky Coffee Tree. Hill-side at Norwalk where no parent tree exists at present (Eames). Introduced from the central United States.

† *TRIFOLIUM DUBIUM* Sibth. Rare. Three stations, one abundant,

at Fairfield (Eames & C. C. Godfrey), Middletown (W. R. Dudley; specimen in Herb. Yale University). Adventive from Europe.

† *COLUTEA ARBORESCENS* L. Rare. A small colony on a roadside bank, Milford (Eames). Introduced from Europe.

† *ANTHYLLIS VULNERARIA* L. Kidney Vetch. In ground where potting soil from greenhouses had been spread, Cromwell (Mrs. S. V. Hubbard, RHODORA, xiii. 240). Fugitive from Europe.

† *ASTRAGALUS CANADENSIS* L. In the herbarium of Wesleyan University is a specimen of this species labelled: "Rock Falls, near Middletown, Ct., June 10, 1879. Hewitt, '79, legit."

LESPEDEZA SIMULATA Mackenzie & Bush. Waterbury (A. E. Blewitt).

* *L. HIRTA* (L.) Hornem., var. *OBLONGIFOLIA* Britton. Glastonbury (Mrs. F. W. Starmer, RHODORA, xiii. 31).

* *L. CAPITATA* Michx., var. *STENOPHYLLA* Bissell & Fernald. RHODORA, xiv. 92 (1912). Sandy soil: Groton (Graves), Glastonbury (Bissell).

† *ARACHIS HYPOGAEA* L. Peanut. Waste ground, Waterbury (A. E. Blewitt). Fugitive from tropical regions.

VICIA TETRASPERMA (L.) Moench. Thomaston (A. E. Blewitt), Salisbury (Mrs. C. S. Phelps), Oxford (Harger).

VICIA HIRSUTA (L.) S. F. Gray. Waterbury (A. E. Blewitt). Associated with *V. tetrasperma* at Fairfield (Eames) and Greenwich (W. H. Hoyt).

V. VILLOSA Roth. This vetch, now much used as a cover crop, is escaping quite freely to roadsides and waste places and sometimes persists two to three years in fields where it has been sown.

LATHYRUS PALUSTRIS L., var. *LINEARIFOLIUS* Seringe. Waterford (Graves), Bridgeport (Eames).

* *L. PALUSTRIS* L., var. *PILOSUS* (Cham.) Ledeb. Groton and Old Lyme (Graves), Old Saybrook (Harger). Referred to var. *linearifolius* in the Catalogue. See RHODORA, xiii. 51.

LENS ESCULENTA Moench. Waterbury (A. E. Blewitt).

AMPHICARPA PITCHERI Torr. & Gray. Chester (Harger). In the Catalogue not reported east of Southington.

LINUM MEDIUM (Planch.) Britton. Granby (B. B. Bristol).

* *L. FLORIDANUM* (Planch.) Trel., var. *INTERCURSUM* (Bicknell) Weatherby. RHODORA, xviii. 224 (1916). Pasture in rather moist sandy soil, East Hartford (Weatherby).

* *GERANIUM BICKNELLII* Britton. Rare. Dry soil: Meriden (A. E. Blewitt), Kent (H. Mosher).

G. PUSILLUM Burm. f. New London (Mrs. A. V. DeWitt).

POLYGALA NUTTALLII Torr. & Gray. Voluntown (Harger).

EUPHORBIA POLYGONIFOLIA L. Occurs inland as a weed in waste ground at Hartford (H. S. Clark).

E. ESULA L. Roadsides, Greenwich (Eames & W. H. Hoyt).

* *ILEX MONTICOLA* Gray, var. *MOLLIS* (Gray) Britton. Woods, Torrington (W. E. Campbell, RHODORA, xiv. 205). This plant should be looked for in Salisbury, as it has been found in Mt. Washington, Mass., within a mile of the state line.

I. VERTICILLATA (L.) Gray, var. *TENUIFOLIA* (Torr.) Wats. Occasional throughout western Connecticut.

I. LAEVIGATA (Pursh) Gray. Stafford (Weatherby). Not previously reported from Tolland Co.

EVONYMUS ALATUS (Thunb.) Rupr. & Maxim. Occasional over much of the state.

E. ATROPURPUREUS Jacq. Waterbury (A. E. Blewitt).

ACER PLATANOIDES L. Freely escaping at Seymour (Harger).

AESCULUS HIPPOCASTANUM L. Bank of Shetucket River, Norwich (Graves).

RHAMNUS ALNIFOLIA L'Hér. Durham (Weatherby), Guilford and North Branford (W. R. Dudley; specimens in Herb. Yale University), Brookfield and Southbury (Harger). In the Catalogue not reported south of Cornwall.

† *R. FRANGULA* L. Beaver Meadows, New Haven (G. E. Nichols). Introduced from Europe.

PARTHENOCISSUS QUINQUEFOLIA (L.) Planch., var. *HIRSUTA* (Donn) Planch. *Pseclera quinquefolia* (L.) Greene, var. *hirsuta* (Donn) Rehder. Haddam and Danbury (Weatherby), Waterbury (A. E. Blewitt), Oxford (Harger), and frequent in dry, rocky woods on the trap ridges of central Connecticut. In the Catalogue reported only from Litchfield Co.

VITIS BICOLOR LeConte. Oxford (Harger) and rare or occasional throughout southwestern Connecticut.

† *ANODA TRIANGULARIS* DC. Yard where grain-screenings had been scattered, Southington (H. Whitney). Fugitive from the southwestern United States.

HYPERICUM MAJUS (Gray) Britton. Killingly (Weatherby), Bark-

hamsted (A. E. Blewitt), Hartland (Bissell & Weatherby). Not previously reported from Windham Co. or northern Connecticut west of the Connecticut River.

* *HUDSONIA ERICOIDES* L. Sand-banks and sandy woods, Voluntown (A. W. Evans & G. E. Nichols).

LECHEA MARITIMA Leggett, var. *INTERIOR* Robinson. Enfield and Suffield (Bissell & R. W. Woodward, *RHODORA*, xiii. 31), Plainfield (Mrs. Henry Dorrance). Northward extensions of range.

L. LEGGETTII Britton & Hollick. Branford and Oxford (Harger). In the Catalogue reported only from New London Co.

* *VIOLA EMARGINATA* LeConte. Low, sandy woods, Cromwell (Philip Dowell).

* *V. SELKIRKII* Pursh. Cold, rocky woods, Salisbury (Mrs. C. S. Phelps, *RHODORA*, xv. 225).

V. PRIMULIFOLIA L. Canaan (Miss Julia F. White), Salisbury (Mrs. C. S. Phelps). Not previously reported from Litchfield Co.

V. ROSTRATA Pursh. East Windsor (J. W. Robbins, about 1825; specimen in Herb. Yale University).

OPUNTIA VULGARIS Mill. On ledges of Hartland schist, Farmington (Lauman Preston, about 1860, E. H. Munger). Not previously reported so far inland.

† *DAPHNE MEZEREUM* L. Dry hillside woods: Norfolk (reported in Crissey's History of Norfolk, p. 498; Miss M. C. Seymour, *RHODORA*, xvi. 96), Salisbury (Mrs. C. S. Phelps, *RHODORA*, l. c.). Adventive from Europe.

LYTHRUM SALICARIA L. Waterford (Graves), Windham (Miss Grace P. Bates). In the Catalogue not reported from New London or Windham Counties.

EPILOBIUM MOLLE Torr. Guilford (W. R. Dudley; specimen in Herb. Yale University).

* *OENOTHERA MURICATA* L. Dry soil, often on railway fills or sea-beaches; Orange and East Haven (G. E. Nichols), North Branford and Seymour (Harger). Frequent in southwestern Connecticut (Eames).

GAURA BIENNIS L. Windsor (Prof. E. P. St. John). Extension of range northward.

† *CLARKIA PULCHELLA* Pursh. In newly seeded grass-land: Somers (Mrs. Myrtie D. Davis), Windsor (C. R. Hathaway); Granby (I. Holcomb), New Milford (E. H. Austin). Fugitive from the northwestern United States.

* MYRIOPHYLLUM ALTERNIFLORUM DC. Shallow water of Tyler's Pond, Goshen. (Bissell & Weatherby).

M. SPICATUM L. In slow water of the Housatonic River at Oxford and Huntington (Harger). Only sterile material found but apparently well distinguished by the foliar characters.

(To be continued.)

ADDITIONS TO THE FLORA OF CONNECTICUT.

(Continued from page 232.)

SANICULA GREGARIA Bicknell. Occurs westward to North Canaan (A. E. Blewitt), Cornwall (Harger), and Salisbury (Mrs. C. S. Phelps).

S. TRIFOLIATA Bicknell. Cheshire (A. E. Blewitt), Danbury (Harger).

* *OSMORHIZA LONGISTYLIS* (Torr.) DC., var. *VILICAULIS* Fernald. Rich woods and fence-rows: Waterbury (A. E. Blewitt), Sharon, Southbury, Oxford and Milford (Harger). Probably frequent in southwestern Connecticut.

AEGOPodium PODAGRARIA L. Waterbury (A. E. Blewitt), Salisbury (A. E. Blewitt & Harger). Both of the above stations are of the form with variegated leaves; the form with unspotted leaves has been found at Bridgeport (Eames).

* *SIUM CICUTAEFOLIUM* Schrank, var. *CARSONII* (Durand) Eames. *RHODORA*, xviii. 237 (1916). Occasional to frequent in the southern part of the state.

† *APIUM GRAVEOLENS* L. Celery. Waste ground in Bridgeport (Eames). Fugitive from Europe.

TAENIDIA INTEGERRIMA (L.) Drude. Haddam (C. M. Child; specimen in Herb. Wesleyan University), New Milford (Bissell). Not previously reported from the Connecticut valley.

† *ANTHRISCUS CEREFOLIUM* (L.) Hoffm. A weed in gardens. Salisbury (Mrs. J. R. Sanford, *RHODORA*, xvi. 96). Adventive from Europe.

† *HERACLEUM SPHONDYLIIUM* L. A small clump, persistent since 1910 at least, at Bridgeport (Eames). Fugitive or adventive from Europe.

CORNUS STOLONIFERA Michx. Redding (A. H. Graves), Moses Mt., Danbury (A. H. Graves & Harger). Not previously reported south of New Milford.

† *CALLUNA VULGARIS* (L.) Hull. Heather. Ling. A single plant in dry woods at Woodbury (E. M. Stoddard) and one in a similar situation at Salisbury (Mrs. Donald T. Warner). Pines from European nurseries have been used for forest planting near each of these two stations, which may account for the introduction of the plant, although at neither place was it found among the pines as planted.

LEDUM GROENLANDICUM Oeder. Windham (Bissell & Weatherby); sphagnum bog near Congamond Lake, Suffield (Harger).

RHODODENDRON CANADENSE (L.) BSP. Winchester and Salisbury (Mrs. C. S. Phelps). Not previously reported from Litchfield Co.

ARCTOSTAPHYLOS UVA-URSI (L.) Spreng. Windsor and Salisbury (Mrs. C. S. Phelps). Not previously reported from Litchfield Co.

CHIOGENES HISPIDULA (L.) Torr. & Gray. New Fairfield (A. H. Graves & Harger). In the Catalogue not reported from Fairfield Co.

VACCINIUM STAMINEUM L. Haddam (Weatherby), Burlington (Miss Julia F. White). Not previously reported east of Waterbury.

The fruit of this species is usually rated as inedible or at most tart. There are times, at least, when it attains a diameter of 1.8 cm., becomes juicy, sweet or somewhat acidulous and slightly fragrant, the translucent skin roseate or blushed.—E. H. EAMES.

* *V. VACILLANS* Kalm, var. *CRINITUM* Fernald. *RHODORA*, xiii. 236 (1911). Glastonbury (Mrs. F. W. Starmer).

* *V. CORYMBOSUM* L., var. *PALLIDUM* (Ait.) Gray. In a swamp near the shore at Stonington (Harger).

LYSIMACHIA VULGARIS L. Ridgefield and Danbury (A. H. Graves, Harger and R. W. Woodward). This species is occasional and thoroughly wild in roadsides, wet fields and damp thickets for some two miles along a valley.

† *L. PRODUCTA* (Gray) Fernald. Waterbury (A. E. Blewitt & Harger). Not previously reported in New Haven Co.

STEIRONEMA LANCEOLATUM (Walt.) Gray. Thompson (Weatherby), Plainfield (Bissell, Harger and R. W. Woodward). Not previously reported from Windham Co.

DIOSPYROS VIRGINIANA L. This species is not limited to the grove on the beach at Lighthouse Point. Much larger trees, some of them nearly 30 ft. tall, occur in the rocky woods west of the trolley line. These trees appear native and, because of their size, older than those by the beach.—E. H. EAMES.

ACERATES VIRIDIFLORA Ell., var. *LANCEOLATA* (Ives) Gray. East Haven (O. Harger, 1885), New Haven at the type station (Harger), Oxford (Harger).

CONVOLVULUS SPITHAMAEUS L. Glastonbury (Mrs. F. W. Starmer), Orange (Harger), Stamford (W. H. Hoyt). Eastward and southward extensions of range.

C. JAPONICUS Thunb. Greenwich (W. H. Hoyt), Bridgeport (A. E. Blewitt).

* *CUSCUTA OBTUSIFLORA* HBK. Rare. Shores of the Connecticut, Housatonic and Pomperaug Rivers: Windsor (G. E. Nichols), Southbury (Harger, *RHODORA*, xv. 66), Newtown (Bissell & Harger), Huntington (Harger & Weatherby).

C. COMPACTA Juss. Killingly (Weatherby). Not previously reported from Windham Co.

PHLOX PILOSA L. Sandy roadside, Southbury, at a locality about a mile distant from the station noted in the Catalogue.

† *POLEMONIUM REPTANS* L. Escaped from cultivation in Easton (Eames).

CYNOGLOSSUM OFFICINALE L. Stamford, at several stations (W. H. Hoyt), Naugatuck and Waterbury (A. E. Blewitt).

* *C. VIRGINIANUM* L. Rare. Killingworth (F. W. Hall, 1874; specimen in Herb. Conn. Agr. Exp. Sta.), Stamford, rocky woods at several places (W. H. Hoyt).

C. BOREALE Fernald. Guilford (W. R. Dudley; specimen in Herb. Yale University).

MYOSOTIS ARVENSIS (L.) Hill. Southington (Andrews).

SYMPHYTUM ASPERUM Lepechin. *S. asperissimum* Donn. Greenwich (Bissell & Weatherby).

† *PHACELIA LINEARIS* (Pursh) Heller. Spontaneous in newly seeded grass-land, with *Clarkia*, Windsor (C. R. Hathaway). Fugitive from the northwestern United States.

† *ONOSMODIUM OCCIDENTALE* Mackenzie. Waste ground, Naugatuck (A. E. Blewitt, *RHODORA*, xiv. 163). Fugitive from the West.

VERBENA ANGUSTIFOLIA Michx. Cromwell (M. Hitchcock, 1881; specimen in Herb. Wesleyan University). In the Catalogue not reported from the Connecticut valley.

SCUTELLARIA PARVULA Michx., var. *AMBIGUA* (Nutt.) Fernald. North Branford (W. R. Dudley, Harger).

AGASTACHE NEPETOIDES (L.) Ktze. Frequent in Stamford and Greenwich (W. H. Hoyt).

A. SCROPHULARIAEFOLIA (Willd.) Ktze., var. *MOLLIS* (Fernald) Heller. Thomaston (A. J. Hill), Woodbury (Eames & C. C. Godfrey).

DRACOCEPHALUM PARVIFLORUM Nutt. Waste ground and cultivated fields: Waterbury and Barkhamsted (A. E. Blewitt), Bridgeport (Eames), Stamford (W. H. Hoyt).

GALEOPSIS LADANUM L., var. *LATIFOLIA* (Hoffm.) Wallr. The Catalogue report of *G. Ladanum* was based on a specimen of this variety.

LAMIAM HYBRIDUM Vill. Fairfield (Eames).

† SALVIA VERTICILLATA L. Waste ground, Naugatuck (A. E. Blewitt). Fugitive from Europe.

S. OFFICINALIS L. Glastonbury (C. C. Hanmer).

MONARDA CLINOPODIA L. Fairfield (Eames).

† ANTIRRHINUM MAJUS L. Snapdragon. Rare. Waste ground, Bridgeport (Eames). Fugitive from Europe.

MIMULUS ALATUS Ait. Middletown (A. E. Blewitt), Chester (Harger), Guilford (W. R. Dudley; specimen in Herb. Yale University).

LIMOSELLA AQUATICA L., var. TENUIFOLIA (Wolf) Pers. Shore of Lake Saltonstall, Branford (R. W. Woodward). Previously reported only from tidal shores.

ILYSANTHES ANAGALLIDEA (Michx.) Robinson. Groton (Bissell), Plainfield (Harger). Not previously reported from eastern Connecticut.

† DIGITALIS AMBIGUA Murr. Foxglove. Waste ground, East Lyme (Mrs. F. H. Dart). Fugitive from Europe.

* VERONICA ANAGALLIS-AQUATICA L. Water Speedwell. Ditch by railroad track, North Canaan (Weatherby, RHODORA, xiii. 32).

V. TEUCRIUM L. Canaan (A. E. Blewitt), Huntington and Bridgeport (Eames).

V. TOURNEFORTII C. G. Gmel. Southington (Andrews).

* PEDICULARIS CANADENSIS L., forma PRAECLARA A. H. Moore. RHODORA xvi. 128 (1914). This red-flowered form is occasional to frequent with the species throughout.

UTRICULARIA CLANDESTINA Nutt. Cromwell (E. J. Thompson, RHODORA, xiii. 78), South Windsor (C. W. Vibert). In the Catalogue reported only from near the coast.

U. RESUPINATA B. D. Greene. Poquonnoc Lake, Groton (T. E. Hazen).

† SHERARDIA ARVENSIS L. Rare. Well established in a lawn, New Haven (A. H. Graves). Adventive from Europe.

GALIAM MOLLUGO L. Occasional throughout western Connecticut.

G. ERECTUM Huds. Old Lyme (Graves).

* MITCHELLA REPENS L., forma LEUCOCARPA Bissell. RHODORA, xiii. 32 (1911). Windsor and Simsbury (Miss B. C. Hitchcock), Canaan and Cornwall (Miss M. J. Whitney).

† LONICERA MORROWI Gray. Established along a fence-row, Cromwell (Mrs. S. V. Hubbard). Adventive from eastern Asia.

L. TATARICA L. Cheshire (A. E. Blewitt), Naugatuck (Harger).

L. CANADENSIS Marsh. Windsor (Weatherby), Guilford (W. R. Dudley), Redding (Eames & C. C. Godfrey).

LINNAEA BOREALIS L., var. *AMERICANA* (Forbes) Rehder. Cromwell (E. J. Thompson, *RHODORA*, xiii. 78), Salisbury (Mrs. C. S. Phelps).

† *VIBURNUM LANTANA* L. Established on a roadside, Fairfield (Eames). Introduced from Eurasia.

† *VIBURNUM OPULUS* L. A quantity along a roadside, Westport (Eames). Introduced from Europe.

* *SAMBUCUS RACEMOSA* L., forma *CHRYSOCARPA* Eames & Godfrey ex E. H. Eames. *RHODORA*, xviii. 239 (1916). Rocky slopes of Quonnipaug Mt., Guilford (Eames & C. C. Godfrey).

KNAUTIA ARVENSIS (L.) T. Coulter. Abundant in a field, Litchfield (A. E. Blewitt). Eastford, well established and spreading to fields and swamps (Mrs. Geo. H. Bosworth).

* *CAMPANULA ULIGINOSA* Rydb. Open swamps: Litchfield (W. Buell), Sharon (Bissell).

EUPATORIUM SESSILIFOLIUM L. Cheshire, Waterbury and Thomaston (A. E. Blewitt).

E. AROMATICUM L. Saybrook at Deep River (Weatherby). In the Catalogue not reported from Middlesex Co.

GRINDELIA SQUARROSA (Pursh) Dunal. South Windsor (C. W. Vibert); several plants in dry field, Oxford (Harger).

† *G. LANCEOLATA* Nutt. One robust plant by a roadside, Greenwich (W. H. Hoyt). Fugitive from the southwestern United States.

CHRYSOOPSIS FALCATA (Pursh) Ell. North Haven at Montowese (R. W. Woodward & A. E. Blewitt), Naugatuck (A. E. Blewitt).

SOLIDAGO SQUARROSA Muhl. Southward in western Connecticut to New Milford (Eames).

S. CANADENSIS L. Middletown (J. Barratt), New Hartford (Bissell, *RHODORA*, xiii. 32). In the Catalogue reported only from Lyme.

* *S. CANADENSIS* L., var. *HARGERI* Fernald. *RHODORA* xvii. 11 (1915). Rare. Valleys of the Connecticut and Housatonic Rivers: Middletown (J. Barratt), Lyme, Oxford, Southbury and Canaan (Harger). Distinguished from *S. canadensis* by the short-villous stem and panicle. At Lyme the species and variety grow together and completely intergrade.

S. ASPERULA Desf. Occurs in southwestern Connecticut commonly where *S. sempervirens* and *S. rugosa* grow together.

BOLTONIA ASTEROIDES (L.) L'Hér. Bridgeport and Fairfield (Eames), Stamford (W. H. Hoyt).

† *CALLISTEPHUS CHINENSIS* (L.) Cass. China Aster. Waste ground: Hartford (H. S. Clark), Southington (Andrews). Fugitive from eastern Asia.

ASTER DIVARICATUS L. The forms which have been described as *A. carmesinus* Burgess and *A. persaliens* Burgess are frequent or occasional in open woodland throughout.

A. HERVEYI Gray. Killingworth (F. W. Hall), Southington (Andrews).

A. SPECTABILIS Ait. Killingworth (F. W. Hall, 1879). In the Catalogue reported only from New London Co.

A. RADULA Ait. Guilford (J. Barratt), Ellington (F. N. Pease), South Windsor (Bissell).

A. LOWRIEANUS Porter. Cheshire (Bissell & A. E. Blewitt, *RHODORA*, xiii. 32). Occasional in Fairfield Co. (Eames).

A. LAEVIS L., var. *AMPLIFOLIUS* Porter. Old Lyme (Graves), Cromwell (J. Barratt), New Haven (G. E. Nichols), Milford (Harger).

A. AMETHYSTINUS Nutt. Guilford (W. R. Dudley; specimen in Herb. Yale University).

A. DUMOSUS L. Milford (Harger). Not previously reported west of Southington.

A. TRADESCANTI L. Southbury (Bissell) and occasional in southwestern Connecticut (Eames).

A. LONGIFOLIUS Lam. Suffield (Eames & C. C. Godfrey), Enfield (Bissell & R. W. Woodward, *RHODORA*, xiii. 33). In the Catalogue not reported from the Connecticut valley.

A. INFIRMUS Michx. Stamford (Eames & W. H. Hoyt).

* *A. PTARMICOIDES* Torr. & Gray. Plentiful at one locality in limestone soil at Salisbury (Eames & C. C. Godfrey, *RHODORA*, xvi. 20).

* *ERIGERON RAMOSUS* (Walt.) BSP., var. *SEPTENTRIONALIS* Fernald & Wiegand. *RHODORA*, xv. 60 (1913). Middlebury (W. M. Shepardson), Greenwich (Cushman & Sanford).

* *E. PUSILLUS* Nutt. Sandy roadside, Voluntown (J. F. Collins & M. L. Fernald); Bridgeport (Eames). For description see *RHODORA*, xv. 207.

PLUCHEA CAMPHORATA (L.) DC. Many plants in waste ground at Waterbury (A. E. Blewitt).

* *ANTENNARIA OCCIDENTALIS* Greene. Rare. Glastonbury (Weatherby), roadside at Barkhamsted (Harger).

GNAPHALIUM PURPUREUM L. Portland (Bissell & R. W. Woodward, *RHODORA* xiii. 33), Middletown (J. Barratt, 1839), Oxford (Harger). In the Catalogue reported only from New London Co.

† *PARTHENIUM HYSTEROPHORUS* L. One plant in waste ground at Bridgeport (Eames). Fugitive from the southern United States.

† *AMBROSIA PSILOSTACHYA* DC. Roadsides: Stratford and Bridgeport (H. S. Clark, *RHODORA*, xiii. 33). Fugitive or adventive from the western United States.

HELIANTHUS GROSSE-SERRATUS Martens. Waterbury (A. E. Blewitt), Huntington (Eames). In the Catalogue reported as apparently native at Newington. Since that time, however, another western species, *Bidens aristosa*, has been found in the same field, and it seems more likely that both were introduced and have become established.

H. TRACHELIIFOLIUS Mill. Open woods near Moosup Pond, Plainfield (Harger). Previously reported only from New Haven.

COREOPSIS LANCEOLATA L. Abundant in a dry field, Glastonbury (Weatherby), Bridgeport and Fairfield (Eames).

† *C. GRANDIFLORA* Hogg. Escaped from cultivation to waste ground, Bridgeport (Eames). Adventive from the southwestern United States.

† *C. PUBESCENS* Ell., var. *ROBUSTA* Gray in herb. ex E. H. Eames. *RHODORA*, xviii. 239 (1916). Waste ground, Bridgeport (Eames, l. c.). Adventive from the southern United States.

* *BIDENS VULGATA* Greene, var. *PUBERULA* Wiegand. Rare. Roadside, Naugatuck, perhaps introduced; and on the Connecticut River meadows at Rocky Hill, apparently native (Harger).

B. CONNATA Muhl. Stonington (Harger), Waterbury (A. E. Blewitt), Newtown (Bissell & Harger). A form with ray-flowers occurs at Branford (Harger).

B. LAEVIS (L.) BSP. Franklin (R. W. Woodward, *RHODORA*, xv. 95). In the Catalogue not reported east of the Connecticut valley.

B. TRICHOSPERMA (Michx.) Britton. Glastonbury (Mrs. F. W. Starmer), Hartford (H. S. Clark). The only previous record was based on an old collection at New Haven by O. Harger — a station long since destroyed.

B. ARISTOSA (Michx.) Britton. Moist ground in an old field, Newington (Mrs. C. S. Phelps).

* *B. ARISTOSA* (Michx.) Britton, var. *MUTICA* (Gray) Gattinger. Old fields and waste places: Windham (Graves; in the Catalogue

referred to *B. aristosa*), Newington, with the typical form (Mrs. C. S. Phelps), Bloomfield (Weatherby). Fugitive or adventive from the western United States.

HELENIUM NUDIFLORUM Nutt. South Windsor (C. W. Vibert), Granby (I. Holcomb), Waterbury (B. B. Bristol), Middlebury (A. E. Blewitt & Harger).

ACHILLEA LANULOSA Nutt. Waterbury (A. E. Blewitt).

† *A. PTARMICA* L. A double-flowered form has been collected about an old cellar, Beacon Falls (A. E. Blewitt, *RHODORA*, xiv. 164). Waste ground, Fairfield (Eames). Fugitive from Europe.

MATRICARIA SUAVEOLENS (Pursh) Buchenau. Cromwell and Oxford (Harger). At Cromwell a widely spread and persistent weed.

† *CHRYSANTHEMUM SEGETUM* L. Rare. In an abandoned garden, Oxford (Harger). Fugitive from Europe.

ARTEMISIA STELLERIANA Bess. Extends westward on sea-beaches to Madison; also in Milford (Eames).

† *A. GNAPHALODES* Nutt. A small but vigorous colony in waste ground by a roadside, East Windsor (Weatherby). Adventive from the western United States.

CACALIA SUAVEOLENS L. Bank of the Housatonic River at Oxford (Harger).

† *ARCTIUM TOMENTOSUM* Mill. Waste ground, Naugatuck (A. E. Blewitt, *RHODORA*, xii. 45). Adventive from Europe.

† *A. NEMOROSUM* Lejeune. Waste ground: Waterbury (A. E. Blewitt), Huntington (Harger). Occasional in southwestern Connecticut (Eames). Adventive or naturalized from Europe.

† *CARDUUS NUTANS* L. Spontaneous in a garden, Ledyard (Graves). Fugitive from Europe.

C. ACANTHOIDES L. Simsbury (specimen in the Shurtleff Herbarium at Wesleyan University; no collector given).

CIRSIUM ARVENSE (L.) Scop., var. *INTEGRIFOLIUM* Wimm. & Grab. Well established in a field, Fairfield (Eames).

ONOPORDON ACANTHIUM L. An ornamental pest at one place in Fairfield (Eames).

† *SILYBIUM MARIANUM* (L.) Gaertn. Persistent in a garden, New Milford (E. H. Austin). Fugitive from Europe.

CENTAUREA JACEA L. Monroe (Harger). At this station this species and its var. *lacera* grow in company with *C. nigra* and its var. *radiata* and the four forms appear to intergrade (Harger). A similar station at Bridgeport — but no *C. nigra*, var. *radiata* (Eames).

† *C. AMARA* L. In grass-land, Fairfield (Eames). Adventive from Europe.

C. MACULOSA Lam. Plainfield (Mrs. Henry Dorrance), Oxford (Alfred P. Harger), Middlebury and New Fairfield (A. E. Blewitt), Kent (H. Mosher).

C. VOCHINENSIS Bernh. Ledyard (B. T. Avery, Graves), Cheshire (A. E. Blewitt).

† *CNICUS BENEDICTUS* L. Accidental in a garden, Kent (Miss J. F. Gregory). Fugitive from Europe.

KRIGIA AMPLEXICAULIS Nutt. Moist field at two stations, Danbury (Harger). Occasional at Stamford (W. H. Hoyt).

PICRIS ECHIOIDES L. In newly seeded grass-land, Milford (Harger).

SONCHUS ARVENSIS L. Southbury (Harger).

LACTUCA SCARIOLA L. Waterbury (A. E. Blewitt).

L. INTEGRIFOLIA Bigel. Manchester (Bissell), Middletown (J. Barratt, 1838), Torrington (Bissell & Weatherby), Stratford and Beacon Falls (A. E. Blewitt), Stamford (W. H. Hoyt), East Hartford and probably Salisbury (Weatherby). In the Salisbury plant the leaves have the characteristic oblanceolate outline of *L. integrifolia* but are entire.

CREPIS TECTORUM L. Kent (H. Mosher).

PRENANTHES ALTISSIMA L., var. *HISPIDULA* Fernald. Plentiful in moist woods by Salmon River, Colechester (Harger).

HIERACIUM PILOSELLA L. Oxford, a small colony (Harger), Fairfield, a considerable area (Eames).

H. FLORENTINUM All. Fields and roadsides at two stations, Salisbury (Harger, Weatherby). Introduced from Europe.

H. PRATENSE Tausch. Occasional over most of the state. A teratological form with the corollas all tubular or with very short ligules is abundant in two fields about half a mile apart in Durham (Weatherby). All the plants in both fields are of this form.

H. MARIANUM Willd. Beacon Falls (Harger), Westport (Eames).

E. B. HARGER,
C. B. GRAVES,
E. H. EAMES,
C. H. BISSELL,
L. ANDREWS,
C. A. WEATHERBY.



